

*Achilleoudis* (U.S. 5,896,385).

Claims 13-19, 21, 22, 24, 26 and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Van Driel* (U.S. Patent 5,523,942).

Claims 20, 23, 25, 28, and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Applicant's Response

Applicant respectfully traverses the rejections based on the cited prior art.

*Achilleoudis* discloses a method for sharing a communication channel. The channel is divided into time slots, which are further divided into a number of control slots and a data slot (Fig. 2 and Col. 5, lines 14-30). When multiple stations have data to send, they transmit a transmission request in a randomly chosen control slot, to reserve a corresponding data slot. In the event of a collision between two or more transmission requests, the stations retransmit their requests in new randomly chosen control slots. This is repeated until there are no more collisions between transmission requests. The order in which the transmission requests are accepted determines the order in which data packets are transmitted by the stations.

Under high loads, collisions are more likely between transmission requests, and many retransmissions may be required before the collisions are all resolved. Because each network time slots has only a limited number of control slots, one or more data slots may pass before all the collisions are resolved. These passed, or idle, data slots represent wasted network bandwidth and reduce network efficiency.

*Achilleoudis* discloses that network efficiency can be improved by dividing an otherwise idle data slot into a number of control slots to facilitate resolving collisions between transmission requests. Alternatively, *Achilleoudis* discloses the number of control slots can be increased and the data slot shortened.

*Van Driel* discloses a method of efficiently sharing a communication channel

under high load conditions. Each station having data to transmit sends a transmission request to a primary station during a sub-slot in a request interval, wherein each secondary station is assigned a specific sub-slot (see Figs. 4 and 5; and col. 5, line 31 to col. 7, line 7). At the end of the request interval, the primary station broadcasts an allocation signal assigning time slots to the requesting stations. The assigned time slots may be, for example, in rank order. After all assigned stations have broadcast their data, a new request interval starts (see col. 7, lines 7-29).

The invention recited in claim 6 relates to a station determining whether a channel is idle during a portion of a network frame and transmitting data during the idle period when no other station transmits during the idle period. This is done by each station performing a Clear Channel Assessment (CCA). A CCA involves listening to the channel for a predetermined period of time. If the period elapses without another station having transmitted, then the channel is clear and the listening station may transmit. The key is that each station listens for a different period of time based on the stations assigned transmission slots. Specifically, an interval called the clear channel waiting time (CCWT) is defined. During an idle period, each station waits a period of time equal to the product of the clear channel waiting time and the slot number assigned to the station. For example, the station assigned slot 1 (one) in a network frame waits  $1 * \text{CCWT}$ , whereas the station assigned slot 4 (four) waits  $4 * \text{CCWT}$  before concluding that the channel is clear for transmission. Thus, a station according to claim 6 performs a CCA that takes into account the stations designated time slot with respect to those of the other stations to determine if the channel is idle.

Applicant respectfully submits that both *Achilleoudis* and *Van Driel* fail to anticipate the claimed invention because they do not disclose anything about a station determining whether the channel is idle. Furthermore, both references fail to disclose a Clear Channel Assessment, a Clear Channel Waiting Time, or the use of the CCWT to determine that a channel is idle and therefor free to use. In both *Achilleoudis* and *Van Driel*, a station having data to transmit must first reserve a time slot using a slot

reservation scheme. In contrast, applicant's claimed invention enables a station to determine that the channel is clear so that it may transmit even without a reserved time slot.

Applicant submits that for at least the reasons provided above, the claims of the present application distinguish over the cited art.


Conclusion

Applicant respectfully submits that the present application is in condition for allowance. Prompt reconsideration and a favorable outcome are requested.

With the addition of no new claims, no additional filing fees are due. However, Applicant requests a One Month Extension of Time To File Response as shown on the attached PTO/SB/22 with extension request fees in the amount of \$110.00 as attached to the accompanying PTO/sb/17 Fee Transmittal. Also, the Commissioner is hereby authorized to charge any fees or credit any overpayment to Deposit Account Number 23-2426 of WINSTEAD SECHREST & MINICK P.C.

If the Examiner has any questions or comments concerning this paper or the present application in general, the Examiner is invited to call the undersigned at (214) 745-5421.

Respectfully submitted,  
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